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May 3, 1993

DCN: TZ4-C10025-LR-13739

Ms. Debbie Flood
U.S. Environmental Protection Agency
1200 Sixth Avenue (HW-113)
Seattle, WA 98101

Subject: SIP Report for Nu-West Industries, Conda, Idaho
W.A. C10025, EPA No. 68-W9-0008
SAIC/TSC Project No. 6-788-03-1408-100

Dear Ms. Flood:

The Nu-West Conda plant in Conda, Idaho, produces phosphate-based fertilizer as well as phosphoric acid. The plant has three tailings ponds, two gypsum ponds, and one or two cooling ponds. There is also a small industrial landfill onsite. The gypsum ponds and tailing ponds represent large onsite sources; the small industrial landfill and continuing stack emissions represent lesser sources. The gypsum ponds and tailings ponds are surface impoundments composed of waste materials. As material is pumped into the ponds, material precipitates or settles out, building up the structure which forms the impoundment. This results in a large quantity of solid material exposed (gypsum stack and tailings) as well as liquid material held in the impoundments.

There are numerous documented cases of releases of hazardous materials to the environment by Nu-West and previous owners of the facility. Releases to ground water have been documented to varying degrees and releases to air have been documented to a limited extent.

SITE BACKGROUND

The El Paso Natural Gas Company purchased the property in the early 1960's and constructed a phosphate ore processing facility and began operations by 1964. Becker Industries purchased the plant in 1971 and operated until 1985 when operations were ceased due to financial difficulties. Nu-West Industries purchased the facility in 1987 and began reconditioning the plant. In 1987 when Ecology and Environment (E&E) performed a Site Inspection, the reconditioning process was still under way; therefore, any

assessment of the plant relative to stack emissions or impacts to onsite workers from any of the sources was not assessed. Nu-West resumed operations in late 1987 after the E&E inspection was performed.

Throughout the history of the facility there have been releases of hazardous materials into the environment. Releases most recently documented include acid spills (which were remediated with oversite from Idaho DEQ). One large release to ground water occurred in 1976 when a dike surrounding the Nu-West cooling pond (then owned by Becker Industries), broke and released approximately 400 acre-feet of wastewater into the surrounding area. Elevated concentrations of cadmium, fluoride, and phosphate were found in J.R. Simplot industrial well #10 immediately after the spill, but concentrations immediately attenuated (J.R. Simplot Company, located adjacent to the Nu-West facility, housed many of their employees in the company town of Conda until the mid 1970's).

Other releases to ground water have been qualitatively documented in correspondence between previous owners of the Nu-West facility and J.R. Simplot. There is evidence that the now abandoned town of Conda's water supply was impacted by releases from the Nu-West (then El Paso Natural Gas and then Becker) facility. The nature of these releases (accidental spills, intentional discharges, etc.) is not clear. As early as 1967, J.R. Simplot complained to El Paso Natural Gas that ground water contamination from their plant was impacting Conda's potable water supply. Other correspondence from that time period exists in EPA's file documenting impacts on domestic water supplies.

The largest documented release was in 1976 when a cooling-water pond dike broke, releasing 400 acre-feet of wastewater. As mentioned above, the concentrations of a few chemicals quickly attenuated.

Releases to air have only been documented in terms of how stack emissions are regulated for air-quality. The emissions are regulated for sulfur dioxide SO_2 and opacity, as part of a monitoring plan for their air permit. There have been documented exceedances of regulated levels of SO_2.

AREAS OF CONCERN

Although there has been documentation of releases to ground water in the past, targets potentially exposed appear to be minimal. The nearest offsite domestic wells to the Site are likely hydraulically separated by a basaltic fault from ground water

beneath the Site. Measured releases have in the past been restricted to industrial wells. However, the historic use of wells at J.R. Simplot is not clear. It is possible that domestic wells were converted to industrial wells when water quality deteriorated. Currently, there are no known drinking water wells impacted by the Site.

Of greatest concern is the air pathway. In the 1987 site inspection, the air pathway (fugitive dusts and stack emissions) was not considered because of the non-operational status of the plant. Currently, however, 240 employees work at the facility. The Nu-West facility also has a pending Notice of Violation (EPA Region X Air and Toxics Division) against it for exceedances of permitted air emissions. In addition, an adjacent property owner has claimed that the emissions have impacted their property by promoting rusting of their out-buildings and fences. This is consistent with proximity, winds, and acid precipitation associated with sulfur dioxide.

A potential threat to public health may lie in chemicals contained in the stack emissions or in wind blown dust from the source piles. There is a strong possibility that heavy metals, fluoride, and/or radionuclides exist in the stack emissions and/or wind blown dust from the source piles. These contaminants should be considered as potentially existing in elevated concentrations based on constituents of wind blown dust and stack emissions at other plants which use similar raw materials. Potential airborne contaminants and concentrations may vary depending on the exact process. Given the probability that these chemicals are present in elevated concentrations, there could be health considerations for onsite workers, nearby offsite residents, as well as any sensitive ecological receptors nearby.

New Information

The primary source of information used for this report was the 1988 Ecology and Environment Site Inspection Report. Other information regarding facilities using similar raw materials was obtained through consultation with Jim Eldridge of SAIC (206) 485-2818. Mr. Eldridge is project manager at SAIC for contract work being done for EPA on the Monsanto and Kerr-McGee CERCLA Sites in Soda Springs, Idaho. These superfund sites are near the Nu-West facility.

Ray Nye, of EPA Region X, Air and Toxics Division (206) 553-4226, provided general information regarding the Notice of Violation.

A CERCLA Eligibility Checklist is enclosed.

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Please feel free to call Lynn Guilford or myself at (206) 485-2818 if you have any questions or comments regarding this submittal.

Sincerely,

Technology Services Company, A Division of
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

David Pass
Environmental Scientist

Enclosure:

cc: G. Sink (letter only)
P. Rubenstein (letter only)